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Implementation of the proposals for action of the Intergovernmental Panel on Forests/Intergovernmental Forum on Forests and the plan of action of the United Nations Forum on Forests: progress in implementation

Rehabilitation and restoration of degraded lands and the promotion of natural and planted forests

Report of the Secretary-General

Summary

An estimated 2.6 billion people are affected by land degradation and desertification in more than one hundred countries. Forces contributing to this situation include climatic variations and unsustainable land use practices.

International collaboration and funding to rehabilitate and restore degraded lands and develop forest lands are increasing, however, developing countries still have limited capacity to formulate and implement sound plans to address these problems and experience difficulties in accessing information technology and networks.

The lack of reliable information on planted forests and secondary tropical forests is a serious constraint, limiting ability to detect trends accurately and to develop future scenarios regarding these resources.

Many tools to sustainably manage natural and planted forests are available, including codes of harvesting, criteria and indicators, management and operational planning guidelines, voluntary certification schemes, environmental and social

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impact assessment and participatory planning guidelines. However, their application is not yet sufficiently widespread, particularly in developing countries and countries with economies in transition.

It is estimated that the secondary tropical forest area comprises 32 per cent of global forest cover, with potential in the future to increase substantially, in area, economic significance and as a source of wood, non-wood forest products and protection values.

The current share of the supply of global roundwood originating from planted forests is estimated at 35 per cent and is projected to increase to 46 per cent by 2040. The significance of planted forests to wood production is likely to increase in all regions, providing a critical addition to raw material supply from natural forests.

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I. Introduction

1. In its multi-year programme of work (E/CN.18/UNFF/2001/Part II), the United Nations Forum on Forests decided to consider, at its second session, progress in the implementation of Intergovernmental Panel on Forests/Intergovernmental Forum on Forests (IPF/IFF) proposals for action related to, inter alia, rehabilitation and restoration of degraded lands and the promotion of natural and planted forests. The present report, therefore, addresses the productive aspects of the rehabilitation and restoration of degraded lands, in particular through planted forests and natural forest restoration.

2. The report was prepared by the Food and Agriculture Organization of the United Nations (FAO), in close consultation with the secretariat of the United Nations Forum on Forests and in collaboration with other member organizations of the Collaborative Partnership on Forests.

II. Background

3. The IPF and IFF proposals for action related to rehabilitation and restoration of degraded lands and the promotion of natural and planted forests are contained in paragraphs 28 (a) and (b), 46 (g) and 58 (b) (ii) and (iii) of the final report of IPF (E/CN.17/1997/12); and paragraphs 64 (g), 122 (a) and 129 (b), (c), (d) and (g) of the final report of IFF (E/CN.17/2000/14).

4. In summary, IPF urged countries to: assess long-term trends in their supply and demand for wood and to promote the sustainability of their wood supply and the means for meeting demand, emphasizing investment in sustainable forest management and strengthening of institutions; and enhance the role of forest plantations as complementary to natural forests and as an important element of sustainable forest management.

5. IPF also invited the Committee on Science and Technology of the Conference of the Parties to the United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa to support research on: plant species that would help restore arid, semi-arid and dry sub-humid land; ways to rehabilitate existing vegetation; water management techniques; the potential for multipurpose trees; and the supply of timber and non-timber forest products.

6. IFF encouraged countries to promote policies to meet the increasing demand for wood and non-wood forest products and services, including through planted forests and trees outside forests, and to work towards an internationally agreed upon definition of planted forests.

7. IFF urged international organizations and donor countries to strengthen their support to and collaboration with international programmes, including through the provision of financial resources and the transfer of environmentally sound technologies and conventions regarding fragile ecosystems.

III. Implementation of the proposals for action of the Intergovernmental Panel on Forests and the Intergovernmental Forum on Forests and the Plan of Action of the United Nations Forum on Forests

8. This section provides an overview of ongoing major activities related to various aspects of rehabilitation and restoration of degraded lands and the promotion of natural and planted forests. It should be noted that in-depth analysis has not been possible because only a limited number of country reports were available and only a few referred to these topics. Therefore, the present report has relied primarily upon the FAO publication, *Global Forest Resources Assessment 2000*[1] as well as country case studies and thematic papers. Other valuable sources include conferences and expert consultative group meetings held in the past two years.

A. Progress in implementation

1. Status of degraded lands in arid, semi-arid and dry sub-humid areas

9. Land degradation is recognized as a global problem, which, when occurring in arid, semi-arid and dry sub-humid areas (referred to as "drylands"), leads to desertification. According to the above-mentioned FAO report it is estimated that 2.6 billion people are affected by land degradation and desertification in drylands in more than 100 countries, covering 5,251 million hectares or 40 per cent of the Earth's land surface. Africa, with 1,952 million hectares, and the Asia Pacific region, with 2,233 million hectares, account for 80 per cent of drylands, while the remaining 20 per cent are located in Europe (207 million hectares), North and Central America (542 million hectares) and South America (317 million hectares). Over time, people living in dryland areas have evolved complex systems to minimize the risks posed by extreme climatic conditions, including the growth of vegetative cover to protect soil and water resources, conserve biological diversity and support agricultural productivity and sustainability, as well as to buffer the effects of desertification and resource degradation processes in arid and semi-arid zones. Vegetative cover also provides for amenities, recreation, maintenance and improvement of livelihoods. Various forces, however, are contributing to the degradation of resources in these areas, including climatic variations, inappropriate land use and agricultural practices driven by increasing population density.

10. It is reported that 73 per cent of rangelands in dryland areas are undergoing degradation, together with 47 per cent of marginal rainfed croplands and a significant percentage of irrigated croplands. Deforestation and overexploitation of forests and woodlands are among the major causes of land degradation. Programmes to address these problems focus, inter alia, on improved management and protection of forests and woodlands, increased vegetative cover outside forests and range improvement. The fight against land degradation and desertification is political, social and technological and the major issues fall under one or more of these aspects.

2. Policy and planning framework for rehabilitation and restoration of degraded lands in arid and semi-arid areas

11. IPF invited the Committee on Science and Technology of the Conference of the Parties to the Convention to Combat Desertification to support research in a number of areas. However, it decided to focus initially on questions concerning: knowledge of the desertification process; strengthening of the capacity of parties to prepare national reports; review of benchmarks and indicators; survey and evaluation of existing networks, institutions, agencies and bodies; and assessment of traditional knowledge and study of early warning systems.

12. More than 40 countries in Africa, Asia, Latin America and the Caribbean and Europe are implementing National Action Programmes to Combat Desertification, as recommended in the Convention to Combat Desertification, many of which are supported by agencies within the United Nations system and by multilateral and bilateral processes.

13. In Africa, four subregional programmes have been established and the concept is fairly well developed in the following areas: integrated management of international river, lake and hydro-geological basins; promotion of agroforestry and soil conservation; improvement of rangelands and development of fodder crops; development of renewable energy sources and technologies; and promotion of sustainable agricultural farming systems. In Asia, one regional programme (Box 1) and one subregional programme for Western Asia have been designed. The national action programme of China is an example of an initiative taken at country level (Box 2).

14. The International Meeting of Experts on the Special Needs and Requirements of Developing Countries with Low Forest Cover and Unique Types of Forests, held in Tehran, Islamic Republic of Iran in October 1999, provided the technical foundations for the Tehran Process in support of countries with low forest cover (see E/CN.18/2002/6). Initiatives to translate the Tehran Process into achievable strategies, action plans and development proposals, within the framework of national forest programmes, are under way in selected countries with low forest cover in the Near East and African regions.

Box 1
Regional action programme in Asia

The resolutions adopted during the first Regional Conference on the Implementation of the United Nations Convention to Combat Desertification, held in New Delhi in August 1996, prepared the ground for the regional action programme for Asia. As a follow-up, two other meetings were held to further mobilize political commitment to regional and subregional collaboration: the Ministerial Conference on Regional Cooperation to Implement the United Nations Convention to Combat Desertification in Asia, held in Beijing in 1997, and the International Expert Group Meeting on the Preparation of the Regional Action Programme for Combating Desertification and Mitigating the Effects of Drought in Asia, held in Bangkok in 1998. They also paved the way for the development of national action programmes and established thematic programme networks to support the regional and national action programmes, which are the mechanisms to combat desertification in the region.

Box 2
National action programme in China

Sixty per cent of the population of China lives in vast desertified areas. Desertified land is mainly distributed in arid, semi-arid and dry sub-humid areas, covering 13 provinces and autonomous regions in north-east China, northern China, north-west China and northern Tibet. China recognizes that combating desertification is critical to the environment and sustainable economic development.

The United Nations Development Programme (UNDP) project, "Capacity-building for the implementation of the United Nations Convention to Combat Desertification", is aimed at strengthening China's capacity to implement the Convention to Combat Desertification. Given that land degradation in dryland areas, or desertification, has multiple and complex causes and that over-exploitation of natural resources is central to the issue, the project focused on increasing the competency of managers, researchers and support staff through training and adequate resourcing.

3. Developments in the rehabilitation and restoration of degraded lands

15. The United Nations Environment Programme (UNEP) and the secretariat of the United Nations Convention to Combat Desertification are collaborating on a project on land degradation assessment in drylands, which aims to provide basic standardized information and methodological tools for land degradation assessment at national, regional and global levels. It is supported by the Global Environment Facility, in collaboration with FAO and the Global Mechanism of the United Nations Convention to Combat Desertification. A workshop, held in Rome in December 2000, recognized the need for the project to consider land degradation as a broad and cross-cutting issue and gave strong support to its further elaboration. Funding has been secured, with FAO acting as the executing agency.

16. The World Wide Fund for Nature (WWF) and the International Union for the Conservation of Nature and Natural Resources (IUCN) are planning to hold a special event on forest landscape restoration in Costa Rica, immediately prior to the second session of the United Nations Forum on Forests in order to present the approach to a broader audience and engage them in the development and refinement of key concepts.

17. In order to facilitate access to information on financing of projects to combat desertification, the Global Mechanism of the United Nations Convention to Combat Desertification designed a system to search, collect and disseminate financial information related to land degradation through a variety of formats and data repositories, such as documents, publications, proprietary databases, web sites, online information systems and networks.

18. The International Tropical Timber Organization (ITTO), in collaboration with FAO and IUCN, is in a process of developing guidelines on the management of secondary tropical forests, the restoration of degraded tropical forests and the rehabilitation of degraded forest lands.

19. Although some countries have had long experience in the use of wastewater and treated wastewater for irrigation, the historical objective of these activities has been largely disposal-oriented. Only in recent years has emphasis been placed on productive and purification aspects. The prevailing tendency has been to allocate wastewater to agricultural uses. Standards and guidelines for wastewater use and treated wastewater use in irrigation apply to agricultural crops. No detailed standards and guidelines have been developed for trees and forest plantations. There are compelling reasons to examine more closely the feasibility of irrigating trees and forests plantations with wastewater. These include: health factors (the reduced risk compared to food crop contamination with pathogens or heavy metals); environmental considerations (benefits provided by greenbelts and other urban and peri-urban forestry plantings, conservation of water resources, rehabilitation of desert lands); economic benefits (the value of forest products and environmental services); and social and aesthetic values. These issues are being addressed in many countries in the Near East with low forest cover.

4. Developments in the rehabilitation and restoration of secondary tropical forests

20. There is no recent definitive data on secondary tropical forest resources. However, their significance as a future forest resource is increasingly being recognized. FAO published the most recent information in 1996, based upon 1990 data sets.[2] The global secondary tropical forest area was then estimated at 32 per cent of global forest cover. In Africa, the secondary tropical forest area was estimated at 313 million hectares; in Latin America, 130 million hectares; and in Asia, 88 million hectares. The potentially productive secondary tropical forest area in Africa is estimated at 380 million hectares; in Asia, 181 million hectares; and in Latin America, 162 million hectares.[3]

21. The first workshop on the management of secondary tropical forests, sponsored by the Center for International Forestry Research (CIFOR), the German Agency for Technical Cooperation (GTZ), the Netherlands, the Amazonian Cooperation Treaty and the Central American Council of Forests and Protected Areas, was held in Pucalpa, Peru, in June 1997. Two other workshops were subsequently held in Asia: (a) an international workshop, sponsored by CIFOR, the International Cooperation Centre of Agricultural Research for Development and USAID in Bogor, Indonesia, in November 1997; and (b) a regional workshop, sponsored by CIFOR, GTZ and the Netherlands in Samarinda, Indonesia, in April 2000. Within the Asia Pacific region, a project, funded by the Netherlands and executed by FAO, extended the network of demonstration sites for forest rehabilitation of logged over forests to include Cambodia, Papua New Guinea and Sri Lanka.

22. In the past, focus was primarily on the management of secondary forests without due regard of the factors responsible for secondary forest formation and transformation. Deforestation around urban areas has been particularly severe and has been partially caused by the collection of wood and non-wood forest products for fuel and other uses. This situation was partly explained by external factors, such as high population growth and low incomes. However, deforestation is also caused by inappropriate land clearing for agricultural and/or cattle raising and unsustainable management and harvesting practices, exacerbated by the inadequacy of current policies and institutions to protect the natural forest resources. Fire is a cheap and effective land clearing tool, however, it has an adverse effect on the fertility of the

land, resulting in the fact that alternative use of the land is abandoned. This results in secondary forest regeneration on degraded lands. In many countries, secondary forest areas are larger than the remaining areas of natural forest.

23. Given the importance of secondary tropical forests in Africa, two workshops will be sponsored by FAO, GTZ and the Netherlands, one in Zimbabwe in December 2002 and the other in Cameroon in March 2003, to compile information on the status and extent of secondary tropical forests in Africa; the causes and processes leading to their formation and transformation; use patterns; social, economic and environmental factors; current and future policies and management practices; constraints and issues relating to secondary forest management in Africa; and priority actions needed for the better management of this resource.

24. The magnitude and importance of secondary forests in some countries is so high that it is predicted that future supply of wood fiber as well as non-wood forests products, goods and services will depend heavily on these resources. It has also been reported that, cost wise, it is cheaper to manage secondary forests than to create new planted forests.[4] Thus it is important to develop guidelines to manage them in accordance with sustainable practices as a means to enhance local, national and regional economies and address the basic needs of an ever-increasing population. However, the solution may not be so simple. In recognition of their importance, ITTO and FAO have embarked on a joint initiative to prepare Guidelines for the Management of Secondary Tropical Forests and Restoration of Degraded Tropical Forests and Tropical Forest Lands. The multilingual report is expected to be available by May 2002.

5. Policies affecting development of planted forests

25. Sound policies and conditions need to be in place to encourage investment in planted forests. Land availability, land tenure and crop ownership are important issues that determine confidence for such investment. In developed countries and in some countries with economies in transition, surplus or marginal agricultural land is becoming increasingly available for planted forests and natural regeneration when owners are willing to commit land for the long term. Land-use conflicts can occur where planted forests are developed on land perceived as suitable for competing uses. In developing countries, policies related to land ownership, land-use, crop ownership rights and freedom to manage and market the crop, which are fundamental to a healthy investment climate, are not always in place.

26. Emerging trends in forest policy affecting planted forests include the:

- Increase in stakeholder participation in policy development and implementation;
- Increase in environmental conservation issues, including international protocols;
- Rise in social equity concerns, especially relating to local and indigenous people;
- Rationalization of economic structures relating to forestry, especially market access;
- Economic efficiency (commercialization and privatization) being softened by demands of social equity and ecological sustainability;

- Increase in the areas of planted forests, with increases in activity by all agents, from individuals to Governments, in the pursuit of their respective goals.

27. While recognizing the economic, environmental and social benefits of planted forests, countries are increasingly realizing that these resources are complementary to natural forests and should not be expanded at the expense of local communities and biodiversity rich habitats.

28. More countries are introducing incentives to encourage planted forests. Direct incentives can include cost-sharing, subsidized credit, fiscal incentives, reduction of uncertainty through loan guarantees, insurance, forest protection agreements and provision of land tenure. Indirect incentives can include provision of market information, extension and education and research. Incentives may not be needed if the private returns from forestry exceed those from other land uses or if the addition of incentives will still not provide an attractive private return.

29. In some countries, particularly in the Asia Pacific region, Governments have implemented logging bans over large areas of natural forests. The reasons vary but are related to environmental concerns. The net effect of deforestation and the exclusion of natural forests as sources for wood production is that some countries in the Asia Pacific region have wood deficits and roundwood harvesting is exceeding growth. The worst affected areas are South Asia, the islands of South-East Asia, with continental South-East Asia also under strain. A recent study reported that, in the Asia Pacific region, the current pace of industrial development of planted forests would barely keep pace with losses from deforestation and the transfer of natural forests to protected status.

30. To date, funding for the reduction of greenhouse gas through carbon sequestration by trees provides for about 4 million hectares of planted forests worldwide. Under the Clean Development Mechanism of the Kyoto Protocol, agreed upon at Bonn during the second part of the sixth Conference of the Parties to the United Nations Framework Convention on Climate Change in July 2001, afforestation and reforestation were recognized as the only eligible land use, land use change and forestry activities. This approach was formally decided upon at the seventh Conference of Parties, held from 29 October to 10 November 2001, in Marrakech, Morocco. It is anticipated that it will lead to a significant increase in planted forests in developing countries, including countries with low forest cover. The agreement on carbon sinks and new funding for the reduction of greenhouse gases is expected to channel more financial resources into forest activities in developing countries and to strengthen international efforts in this area. However, these activities will also require a monitoring and verification system to ensure that planted forests are not established at the expense of the local population or of efforts to conserve biological diversity and that they fulfil their function as carbon sinks.

6. Sustainability of planted forests

31. It is possible not only to sustain but also to increase productivity in successive rotations of planted forests. This requires a clear definition of the end-use of planted forests and sound management. There is a need to integrate strategies for tree improvement programmes, nursery practices, matching species and provenance to sites, appropriate silviculture, forest protection and harvesting practices. Experience has shown that adopting this holistic approach can bring about substantial gains in productivity.

32. It is now recognized that burning and excessive cultivation in site preparation, soil compaction from mechanical operations, inappropriate harvesting techniques and poor forest protection has contributed to loss of nutrients and soil erosion, with a resultant loss in productivity of planted sites. There are few in-depth studies of changes in productivity between rotations or over several rotations. Measurement of yield in successive rotations of trees suggest that, so far, there is no significant or widespread evidence that plantation forestry is unsustainable in the narrow sense. Reported decline in yield is usually associated with poor silvicultural practices and management.[5]

33. Excellent data are available from studies on *Pinus patula* in Swaziland. The tree is grown intensively in 15-year rotations,[6] showing either nil or positive changes in site productivity over three rotations. The question of declining growth in planted teak (*Tectona grandis*) in Indonesia and India remains unclear. Countries recognize that it is necessary to conduct more extensive research on the long-term (over several rotations) sustainability of planted forests not only from an economic point of view but also from social and environmental perspectives.

34. To assist in sound planning, implementation and monitoring of planted forests, a range of management tools are available, including codes of harvesting or forest management practice; criteria and indicators for sustainable forest management; management and operational planning guidelines; voluntary certification schemes; environmental and social impact assessment; and participatory planning guidelines.

35. It is increasingly recognized that trees are planted for a wide range of reasons, including: support for agricultural production and community livelihoods; poverty alleviation; and enhanced food security. Communities and small-holder investors, including individual farmers, grow trees for shelter, home gardens, woodlots and to provide wood and non-wood forest products, fuelwood, fodder and shelter. Outgrower schemes, under various types of contracts with wood processing industries, provide valuable sources of wood supply.

7. Role of planted forests in sustainable forest management complementary to natural forests

36. Owing to environmental concerns and higher costs for access to natural forests, planted forests are becoming more viable as an alternative or complementary source of wood fibre. However, their competitiveness against other land uses, including agriculture and urban development, still constrains their expansion. Due to potential productivity and availability of suitable land, planted forests are increasingly concentrated in the tropical regions and in temperate regions of the southern hemisphere.

37. In Thailand, where there is a policy to preserve all remaining natural forests and conservation areas, the Government is promoting an increase in planted forests, with a 60:40 split between private and State-owned. Expectations are that planted forests will rehabilitate land and supply wood for the domestic market. The establishment of large-scale planted forests has faced strong opposition from rural people who see them as mainly benefiting the rich. Focus has been on small-holder plantings with local participation, but these resources cannot meet the demand for wood. It is reported that the effect of the logging ban in Thailand has been to increase illegal imports of natural forest logs from neighbouring countries.

38. In Viet Nam, between 1990 and 1998, there was a 40 per cent decline in wood production from natural forests. Exploitation for firewood has decreased by 20 per cent but illegal logging appears to have increased. About 30 per cent of large logs used for sawn timber currently come from natural forests, 50 per cent from planted forests, including rubber forests, and about 20 per cent are imported. Shortages of 1.5 to 2 million cubic metres are expected to continue until 2005 and imports are expected to grow. Demand is also rising. There are plans to regenerate 1 million hectares of natural forest and to plant a further 5 million hectares, of which 3 million will be set aside for industrial uses. Alternative funding options and feasibility studies are currently being undertaken by international agencies and non-governmental organizations.

39. Due to natural disasters, China has placed priority on natural forest conservation and protection, with future harvesting increasingly to come from planted forest resources. The current 10-year plan calls for new plantings of both fast-growing species and protection plantings on a 1:4 ratio. Over half the planted forests are in the southern region while natural forests are largely in the north- and south-east. The productivity of past plantings is reported to be lower than expected and a shortfall of roundwood of 27 million cubic metres is expected in 2003. In the short term, this will be met by imports, although planted forests will eventually assist in filling the gap.

40. In the Philippines, logging bans or harvest moratoria are in force in 70 per cent of the forests. The allowable cut from natural forests dropped from 5 million cubic metres in 1990 to one tenth that level in 2000. While the current demand is expected to be at around the 1990 level, only 12, 15 and 1 per cent of the supply comes from natural, coconut and planted forests, respectively. Another 16 to 20 per cent is met by imports and the remaining half has apparently been taken up by steel and cement substitutes and illegal sources. Planted forests, while being recognized as a sustainable source of wood, have not met expectations. Government policies regarding industrial planted forests have changed frequently, leading to instability and uncertainty and resulting in low investment. The Philippines is currently focusing on wood imports.

41. In Sri Lanka, prior to the logging ban on some natural forests in 1989, the harvest was about 980,000 cubic metres, with 44 per cent coming from natural forests, 8 per cent from planted forests and the remainder from non-traditional sources of wood (trees outside forests and rubber and coconut plantings). In 2000, although Sri Lanka is almost self-sufficient in wood, the harvest from planted forests met only one third of the anticipated level. The shortfall was made up from trees outside forests, non-traditional sources of wood and imports of logs, sawn timber and panel products.

42. In New Zealand, the annual production from planted forests is 17 million cubic metres, over half of which is exported. By 2010, the projected annual cut is 30 million cubic metres. Although planted forests supply almost all domestic roundwood demand, there is concern over how to meet the demand for the decorative and specialty woods that have traditionally come from the native forests.

43. New Zealand is more than self-sufficient in wood solely from its planted resources. Planted forests are expected to increase in importance in China and Viet Nam. On the other hand, there have been problems with starting up planted forests in Sri Lanka, the Philippines and Thailand. In the tropics, non-forest sources, such as in trees outside forests as alternative sources of wood (rubber, coconut and oil palm), will gain in importance.

8. Sustainability of wood supply

44. The lack of reliable information on planted forest resources (production forest areas, species, purpose, ownership, age classes, growth, yields, quality, harvest volumes, forest products) is a serious constraint in forecasting sustainability and calculating financial and economic contributions. Until more complete information about these resources is made available, analysis of future scenarios may not provide a true assessment of their potential.

45. Two recent studies by the Australian Bureau of Agricultural and Resource Economics[7] (1999) and FAO[8] (2000) recognized that the increasing demand for wood is influenced by population growth, economic growth, prices for forest products and substitutes. They further concluded that supply is influenced by the state of forest resources and the cost of accessing them as well as by management practices and policies. Comparison was difficult because the assumptions addressing these underlying factors were not always clearly defined.

46. Market analysis indicates that the global demand for pulpwood-based products such as paper and panel products are likely to increase in relation to demand for solid wood products such as sawn timber and plywood. As a result, short rotation pulpwood plantings are likely to dominate new plantations although the changing nature of global wood supply will also provide a source for sawlogs.

47. The study conducted by the Australian Bureau of Agricultural and Resource Economics indicated that future increases in the global supply of wood would be largely from planted forests. Industrial wood supply from planted forests is estimated to increase by 67 per cent, from 624 million cubic metres in 2000 to 1,043 million cubic metres by 2040. The current share of the supply of wood originating from planted forests is estimated at 35 per cent. It is projected that the contribution of wood from planted forests to global roundwood supply could increase to 46 per cent by 2040 (see table 1). North and Central America, Europe, the former Soviet Union and Asia are expected to maintain their dominance over the world wood supply. In a regional context, the significance of planted forests for wood production is likely to increase in all regions. Planted forests in South America and Oceania are projected to provide, respectively, 66 and 67 per cent of their total industrial roundwood supply by 2040.

Table 1
Predicted contribution of planted forests to regional wood supply

Region	2000	2020	2040
	Percentage		
Africa	20	39	40
Asia	32	46	48
Europe/former Soviet Union	46	53	55
North and Central America	22	29	31
Oceania	55	66	67
South America	63	65	66
Worldwide	**35**	**44**	**46**

Source: Australian Bureau of Agriculture and Resource Economics, 1999.

48. Forest plantation descriptions (background, species composition, trends, issues, references) and statistics (annual planting rates, planted areas by species, ownership and purpose, including non-forest planting) have been collected, analysed and reported for each country in the FAO *Forest Resources Assessment 2000*. This is the most comprehensive, transparent and current data available. The global studies referred to above were completed prior to the release of the FAO report.

9. Strengthening institutions

49. At the International Conference on Timber Plantation Development, organized by the Government of the Philippines, ITTO and FAO in Manila in November 2000, 74 participants from 17 countries recognized that planted forests have the potential as a renewable, energy efficient resource to provide a sustainable supply of wood and non-wood products and services, including social benefits and environmental services such as carbon sequestration, soil protection and water protection. In order to realize this potential, it was recognized that supporting mechanisms were necessary from Governments, the private sector, research institutions, education and training agencies and other stakeholders. It was further recognized that Governments needed to provide clear, consistent and stable policies and a favourable investment climate in order to enhance the viability of planted forest development. Efforts should also be made to simplify regulations, clarify land and resource tenure and facilitate the use of technical and financial resources. International organizations and bilateral and multilateral agencies were encouraged to increase their support and assistance for the development of planted forests, particularly in tropical developing countries. However, it was recognized that under an enabling environment, the private sector would be the primary source of investment capital and professional management for forest plantations.

10. International collaboration

50. Studies, proposals, conferences and publications on planted forest development have all involved collaboration between Governments and international organizations, including non-governmental organizations, notably FAO, the World Bank, UNEP, UNDP, CIFOR/the International Centre for Research in

Agroforestry/the Consultative Group on International Agricultural Research, ITTO, the International Plant Genetic Resources Institute, the International Fund for Agricultural Development, IUCN, the International Union of Forest Research Organizations and WWF. Initiatives include:

- International experts meeting on the role of planted forests in sustainable forest management, Santiago, 6 April 1999, sponsored by the Governments of Chile, Denmark, India, New Zealand and Portugal, with technical support from FAO;
- International Conference on Timber Plantation Development, Manila, November 2000, sponsored by the Department of Environment and Natural Resources of the Philippines, ITTO and FAO;
- Planning and seeking sponsors for an international expert meeting on the role of planted forests in sustainable forest management, Rotorua, New Zealand, February 2003.

51. To assist with efforts to combat desertification, a Global Mechanism was established under the authority of the Conference of the Parties of the United Nations Convention to Combat Desertification. The mandate of the Global Mechanism is to promote actions leading to the mobilization of substantial financial resources, including for the transfer of technology, on a grant basis, and/or on concessional or other terms, to affected developing country parties. In response to the multisectoral dimensions of the Convention to Combat Desertification, the Global Mechanism acts as an honest broker and catalyst to draw on and add value to the interventions of other development partners. In order to improve the coordination of efforts to implement the Convention to Combat Desertification, the Global Mechanism receives support and advice from a Facilitation Committee, which brings together representatives of major multilateral institutions.

52. The Council of Global Environment Facility (GEF), at its meeting held from 5 to 7 December 2001, agreed to consider, at its next meeting, designating land degradation, primarily desertification and deforestation as a focal area in order to enhance its support for the successful implementation of the United Nations Convention to Combat Desertification. The Council also requested the GEF secretariat, in consultation with the Implementing Agencies, appropriate executing agencies and the secretariat of the Convention to Combat Desertification, to prepare elements of an operational programme on land degradation, primarily desertification and deforestation.

B. Means of implementation

1. Finance

53. Whether development activities are carried out by Governments or the private sector, lack of funds, particularly in developing countries and countries with economies in transition, is a constraint to the rehabilitation and restoration of degraded lands and to the promotion of natural and planted forests. Specific data on the status, sources and amounts of funds being invested or committed are not available. However, some trends include:

(a) Private investment through commercial banks or quasi-commercial banking institutions and institutional investors seem to be increasing in all regions, with some Governments divesting their interests in commercial or industrial planted forests;

(b) Public funds from Governments and multilateral or bilateral funds in traditional industrial or commercial plantations seem to be decreasing. However, there is increasing support for rehabilitation of degraded lands (low forest cover countries, mangroves, combating desertification) and tree planting to sustain livelihoods and reduce poverty in rural areas (agroforestry, smallholder forestry, shelterbelts, etc.);

(c) Insufficient Government budget allocations to support normative operations in the forest sector, including tree improvement, silviculture, protection, inventory, research, training and monitoring;

(d) Developing countries increasingly recognize the role of Government incentives to encourage investors to plant trees;

(e) Private sector and associated smallholder outgrower schemes (funds, technical assistance in return for markets) are gaining interest in Africa, South America and Asia;

(f) Project or programme specific trust funds from multilateral or bilateral donors are available for rehabilitation and restoration of degraded lands;

(g) Technical cooperation projects for short-term, high priority issues related to planted forests have increased markedly in the past two years;

(h) Rural credit facilities through Governments, donors or non-governmental organizations are available at the community or family levels;

(i) Carbon securities and exchange trade on the open market have stimulated a significant amount of interest, particularly over the past two years, and the volume can potentially increase in the near future;

(j) Prototype Carbon Funds funds from the World Bank have recently become available, including for investment in reforestation and afforestation.

54. Funding for technical assistance seems to be on the rise to assist Governments in developing countries to: identify projects; conduct feasibility studies and environmental and social impact assessments; prepare investment proposals; and implement programmes.

2. Transfer of environmentally sound technologies

55. Governments from developing countries and countries with economies in transition have requested international agencies to assist them in introducing environmentally sound technologies to rehabilitate and restore degraded lands and to promote planted forests:

(a) Information technology and networks are available although developing countries cannot always access and benefit from this technology;

(b) Satellite imagery and photo interpretation, inventory techniques, forest resources assessment and management information systems are critical tools to assist in policy formulation, planning and monitoring. However, despite technical

support from a variety of sources in these fields, country capacity remains weak due to a lack of resources;

(c) Research and development in desertification (benchmarks and indicators, traditional knowledge and early warning systems), technology transfer in genetic resources, tree improvement, nursery practices, silviculture, forest protection, reduced impact harvesting, non-wood forest products and marketing have been recognized as priority areas of research, however a lack of resources in developing countries seriously impairs progress in these areas;

(d) Modern technology for primary and secondary wood processing for wood products and efficient woodfuel burning equipment are recognized as important, however developing countries remain constrained by outdated equipment.

3. Capacity-building

56. Governments from developing countries and countries with economies in transition need support from the international community to address issues related to the rehabilitation and restoration of degraded lands and to promote planted forests, such as:

(a) Legal, regulatory, policy and strategic planning frameworks for reforestation and afforestation remain complex, inconsistent and difficult to apply;

(b) Organizational structures and mechanisms at national and local government levels are not always oriented to serve investor needs to facilitate planted forest development (land and crop tenure rights, access to funds, technical support, freedom of access to markets, etc.);

(c) Curricula and support to education and training; research and development; technical support and extension systems do not always change when new priorities are established under policy and planning frameworks;

(d) Despite increased access to current information and networks on the Internet, dissemination of information and reports to developing countries remains limited;

(e) Participation in international processes and forums is a way to transfer knowledge; Governments need to view this as an institutional investment.

IV. Conclusions

57. The lack of reliable data and information on planted forests and secondary tropical forest resources is a serious constraint in policy and planning formulation, implementation, monitoring, assessment and reporting. Until the information base is improved, analysis of future scenarios for forest resources management may not provide a meaningful assessment of their potential.

58. Many tools to sustainably manage natural and planted forests are available or under preparation, including codes of harvesting or forest management practice, criteria and indicators, management and operational planning guidelines, voluntary certification schemes, environmental and social impact assessment and participatory planning guidelines. However, their application needs to be expanded, particularly in developing countries and countries with economies in transition.

59. The secondary tropical forest area is estimated at 32 per cent of global forest cover, with potential to increase substantially, both in area and economic significance as a source of future wood, non-wood forest products and protection values. The practical guidelines for management of secondary tropical forests are an important initiative. However, these also need to be balanced by addressing causal issues. At the workshops scheduled to take place in Africa in 2002 and 2003 (see para. 23 above) this more holistic approach will be proposed.

60. Trees are increasingly being planted to support agricultural production and community livelihoods, to alleviate poverty and to enhance food security. Communities and smallholder investors, including individual farmers, are growing trees as shelterbelts, home gardens, woodlots and a range of agroforestry systems to provide wood and non-wood forest products, fuelwood, fodder and shelter, particularly in low forest cover countries. Outgrower schemes under various contractual arrangements with wood processing industries provide valuable additional sources of supply.

61. The current share of the supply of global roundwood originating from planted forests is estimated at 34 per cent and is projected to increase to 46 per cent by 2040. In a regional context, the significance of planted forests to wood production is likely to increase in all regions. By 2040, planted forests in America and Oceania are projected to provide 66 and 67 per cent, respectively, of their total industrial roundwood supplies. Planted forests provide a critical addition to raw material supply from natural forests, including industrial roundwood and fuelwood.

62. Although there is increasing international collaboration and alternative sources of funds for addressing rehabilitation and restoration of degraded lands and development of forest lands, constraints in developing countries include access to information technology and networks and limited capacity to formulate sound plans and proposals.

V. Suggestions for consideration by the United Nations Forum on Forests at its second session

63. The following actions are proposed for the second session of the United Nations Forum on Forests:

(a) Recognizing land degradation as a major threat to sustainable development, urge countries to adopt more holistic approaches in unison with policy reforms, technical guidelines and support systems to address rehabilitation and restoration through secondary tropical forest management and planted forest development;

(b) Urge the Assembly and Council of GEF to designate land degradation, primarily desertification and deforestation, as a GEF focal area, and to allocate financial and technical resources to address those problems;

(c) Support the Tehran Process recommendations to strengthen the Low Forest Cover secretariat and build the capacity of low forest cover countries to promote the inclusion of forestry and forestry-related issues in their national development agendas and in the implementation of their national forest programmes;

(d) Encourage countries, multilateral organizations and other stakeholders to rehabilitate and restore degraded lands and forests, and to promote sustainable management practices;

(e) Encourage close collaboration between UNFF and CCD, as well as among the public and private sectors, NGOs and other stakeholders in rehabilitation and restoration of degraded forest lands and development of planted forests;

(f) Welcome the initiatives such as the workshops on secondary tropical forests, to be held in Zimbabwe and Cameroon in the coming years, and encourage other regions to also organize similar cooperative activities to rehabilitate and restore productive capacities of degraded lands.

Notes

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National forest programmes

National forest programmes

Report of the Secretary-General

Summary

The Intergovernmental Panel on Forests/Intergovernmental Forum on Forests process recognized national forest programmes as useful broad policy frameworks for working towards sustainable forest management. The present paper provides an overview of the current status of national forest programmes, which are being implemented to varying degrees in about 100 countries. It highlights experiences in a cross section of countries. The issues and challenges facing countries in implementing national forest programmes are discussed, noting especially the problems facing developing countries and countries with economies in transition. A number of recommendations for consideration by the United Nations Forum on Forests at its second session are aimed at improving implementation of national forest programmes.

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I. Introduction

1. The present report is in response to the United Nations Forum on Forests multi-year programme of work, which, inter alia, calls for national forest programmes to be deliberated at each session as a common item. The purpose of the report is to provide a basis for deliberations at the second session of the United Nations Forum on Forests on the development and implementation of national forest programmes. Based on information available at the time of writing, it provides a preliminary assessment of progress in the development and implementation of national forest programmes, in line with related proposals for action of the Intergovernmental Panel on Forests (IPF) and the Intergovernmental Forum on Forests (IFF).

2. The report was prepared by the Food and Agriculture Organization of the United Nations (FAO), in close consultation with the secretariat of the United Nations Forum on Forests and in collaboration with other member organizations of the Collaborative Partnership on Forests.

3. The Intergovernmental Panel on Forests and the Intergovernmental Forum on Forests concluded that national forest programmes are viable frameworks for addressing forest sector issues, including the implementation of relevant IPF/IFF proposals for action, in a holistic, comprehensive and cross-sectoral manner. It was also noted that, for the implementation of those proposals, national forest programmes could be used as a basis for development assistance to developing countries and countries with economies in transition.

II. Background

4. The conclusions of the report of the Intergovernmental Panel on Forests on its fourth session (see E/CN.17/1997/12, paras. 8-16) provide a general concept of national forest programmes. The proposals for action included in that report (mainly in para. 17 (a)) provide the agreed general attributes and principles of national forest programmes and additional considerations and dimensions of a national forest programme (see paras. 17 (b)-(i)). It was agreed that national forest programmes include a wide range of approaches for the achievement of sustainable forest management. National forest programmes should be based on national sovereignty, specific country conditions and national legislation, and should be consistent with national, subnational or local policies and strategies and, as appropriate, international agreements.

5. The Intergovernmental Panel on Forests emphasized the importance of the following guidelines for the development, implementation, monitoring and evaluation of national forest programmes:

(a) Partnership and participatory mechanisms to involve interested parties;

(b) Recognition and respect for customary and traditional rights;

(c) Secure land tenure arrangements;

(d) Holistic, intersectoral and iterative approaches;

(e) Ecosystem approaches that integrate the conservation of biological diversity and the sustainable use of biological resources;

(f) Adequate provision and valuation of forest goods and services.

6. The Panel recommended using national forest programmes as a basis for international cooperation in the forest sector. It also encouraged countries to establish sound national coordination mechanisms or strategies and further develop the concept and practice of partnership in the implementation of national forest programmes.

7. The Panel also encouraged countries to use criteria and indicators for sustainable forest management in formulating, implementing, monitoring and evaluating national forest programmes. National forest programmes may also assist in capacity-building, improve international cooperation and facilitate flow of official development assistance to developing countries and countries with economies in transition.

8. The experiences from countries show that national forest programmes are being developed and implemented in a variety of contexts and through different types of processes, depending on such factors as the macroeconomic context, level of socio-economic development, the government structure and the type and conditions of the forest resource. The development and implementation of national forest programmes are increasingly taking into account the IPF/IFF proposals

for action. In developing countries, policies, strategies and programmes related to the goal of reducing poverty and hunger by one half by 2015 are increasingly influencing the focus of all development efforts, including national forest programmes.

III. Current status of implementation

9. An overview of national forest programme trends and country experiences is provided below. This is followed by a description of regional, subregional and international actions that facilitate national efforts. The information is grouped by: (a) developing countries; (b) countries with economies in transition; and (c) industrialized countries. The intention of the present report is not to present each country initiative in detail, but rather, to summarize relevant aspects, with a view to describing a range of experiences.

A. Overview of trends in national forest programmes

10. In 1998-1999, 145 countries responded to a survey conducted by FAO on national forest programmes. Of these, approximately 100 indicated that they had reached the implementation phase, while others reported that they were in various stages of development. Table 1 indicates the status of national forest programmes by region.

Table 1
Status of national forest programmes in various regions

	Status of national forest programme		*Total number of national forest programmes*
Region	*Planning*	*Implementation*	
Africa	21	22	43
Asia	10	14	24
Near East	0	3	3
Latin America and the Caribbean	0	33[a]	33
Economies in transition	3	11	14
Organisation for Economic Cooperation and Development	0	21	21
Total	**34**	**104**	**138**

[a] In Latin America and the Caribbean, out of 33 countries, 7 reported inadequate progress in their national forest programmes.

B. Progress in the development and implementation of national forest programmes

11. In this section, a brief overview of national forest programmes is provided for selected countries. The intent is not to evaluate these national forest programmes, but rather, to provide examples of the current situation at the national level in different regions.

Developing countries

12. National forest programmes in Asia are as varied in their approaches to forest management as the political and economic systems in the region. Most of the 14 countries that reported that they were implementing national forest programmes had initiated these activities in the pre-United Nations Conference on Environment and Development era. The typical national forest programme was started under the Tropical Forestry Action Plan or as a forestry sector master planning exercise with assistance from a financial institution such as the World Bank or Asian Development Bank.

13. The national forest programme of Viet Nam started as a Tropical Forestry Action Plan project in 1988. Today the National Five Million Hectare Reforestation Programme serves as an example of a major country-led effort in sustainable forest management that is specifically tailored to address national development goals. It is part of the Government's strategy to reduce poverty and gives prominence to the role the forest sector plays in this regard. Regular reports are provided to and decisions are made by the National Assembly and the Prime Minister. In addition, the Government of Viet Nam and the international donors have signed an agreement to develop the programme based on principles and elements of a national forest programme. A joint forest sector review was undertaken in 2000, with the involvement of all major actors, and led to the Forest Sector Support Programme that integrates and coordinates official development assistance and non-governmental organizations' support to government planning and budgeting. A special unit within the National Five Million Hectare Reforestation Programme Partnership secretariat has been created to coordinate the process and is jointly funded through a trust fund operated by the responsible ministry.

14. Issues related to mobilizing domestic resources and external financing and to establishing enabling conditions for private sector investment are being considered. In addition, management of forest resources by local actors is linked to the ongoing decentralization process and economic reforms. Stakeholders are working more closely together as a result of more open dialogue, greater access to information and participatory decision-making. The principal challenges include lack of resources, especially human resources; divergent expectations by different interest groups; difficulties in mobilizing participation of civil society and the private sector; and difficulties in implementing a decentralized approach without adequate subnational institutional structures. A systematic assessment of the IPF/IFF proposals for action has proven difficult.

15. In India, the Ministry of Environment and Forests has spearheaded the formulation of a National Forestry Action Programme. It is a comprehensive sectoral plan for the next 20 years, aimed at arresting deforestation and increasing the forest/tree cover to 33 per cent, as called for in the National Forest Policy of 1988. It also recognized the forest sector's role in environmental sustainability, agricultural development and poverty alleviation, and the importance of participation of local people in sustainable forest management. The formulation of the programme was completed in 1999 and it is being implemented.

16. The National Forestry Action Programme of India focuses on the issues to be addressed and programmes to be implemented for achieving sustainable forestry by harmonizing the activities of all parties involved, and highlights some of the issues a country based on a federal structure must face in developing such an approach. The document integrates elements from State forestry action programmes, formulated by the state governments, with well-defined intersectoral linkages that blend with the national development plans. A considerable amount of information has been generated during the State forestry action programme preparation process, including several forest sector reviews and special reports. National and regional workshops were held to consider the scope and content of the action programmes, and broad participation from stakeholders included.

17. Efforts are being made to mobilize resources, both from external and internal sources for implementing the National Forestry Action Programme of India and state governments have been asked to increase the allocation to the forestry sector.

18. The principal challenges in moving from planning to implementation revolve around adequate financial commitments, both internally and from the development partners. There is increased scope to strengthen the linkages between forest sector development and the broader objectives of poverty reduction, as reflected in India's priorities and in international agenda.

19. In response to the survey conducted by FAO (see para. 10 above), all countries in Latin America and the Caribbean reported having some kind of national forest programmes in their countries, albeit with different degrees of progress.

20. The forest policy and sector strategy of Costa Rica has incorporated many of the characteristics of a national forest programme, as defined by IPF/IFF, including: (a) broad-based participation; (b) decentralization of responsibilities; (c) economic valuation of forest products and services; (d) the development of market-based policy instruments; and (e) integration with broader environmental frameworks and land-use planning. Costa Rica has worked systematically to integrate many of the proposals for action in its national forest programme, especially those relating to the valuation of the environmental services of forests, and can be regarded as a pioneer in this area.

21. Recent efforts have resulted in the following main outcomes: (a) the forest policy has been updated, with participation of a range of stakeholders, and strategic priorities have been defined in a National Plan for Forest Development; (b) political parties and parliamentary groups have been involved in the dialogue on forest policy and strategy and, as a result, better understand the roles of various actors in the process; and (c) the forest policy and strategy have been integrated into the agenda of government and civil society, thus creating a programme which is practical and which corresponds to societal needs.

22. The main challenges in Costa Rica's national forest programme include: (a) institutionalizing the process to prevent it from the usual influences owing to political/election changes; (b) maintaining the momentum from planning to implementation; (c) continuing with awareness-raising and building

commitment at all levels; and (d) achieving financial sustainability.

23. In Brazil, the National Forest Programme was formally established in 2000 and was launched by the President of the Republic as a new policy and institutional framework for sustainable forest management. Consultations on the national forest programme process have already involved over 600 institutions representing forest producers, social movements, environmental organizations, universities, the private sector and different levels of government. The intent is to incorporate a number of IPF/IFF proposals for action into the national forest programme framework. The programme focuses on cross-sectoral action linked to national development objectives, with a view to moving towards the sustainable management of the country's forests. The short-term aim is to initiate appropriate action at all levels of the federal, state and local government. The medium-term goal is to consolidate the policy framework and to initiate a number of actions to reverse the unsustainable use of forests and stimulate socio-economic development. The long-term objective is to make all forest activities consistent with the "Forest Principles" from the United Nations Conference on Environment and Development, held in Rio de Janeiro, Brazil in 1992.

24. The national forest programme in Brazil will address: (a) expansion of the area of planted forests; (b) improved management of natural forests on public areas; (c) improved management of privately owned natural forests; (d) monitoring and assessment; (e) issues related to traditional and indigenous populations; (f) forest education, science and technology; (g) valuation of forest environmental services; and (h) institutional strengthening and forest extension.

25. In Colombia, a number of federal ministries were engaged in the national forest programme process in order to facilitate cross-sectoral policy harmonization. The country has also achieved considerable success in mobilizing domestic funding for forestry and in attracting substantial loans from the World Bank and the Inter-American Development Bank.

26. In Africa, roughly half of the countries reported to FAO that they have started a national forestry programme planning process, while the other half have reached the implementation stage. However, none of the national forest programmes are adequately funded and every country in the region is hampered by inadequate human resource capacity. Participatory approaches are not well developed in many countries. Countries with civil strife are having the greatest difficulties in implementing their national forest programmes and are facing the highest deforestation rates in the world. For example, Burundi lost 40 per cent of its forest cover during the 1990s.

27. The Government of Malawi launched its national forest programme in January 2001. It is a strategic framework on which stakeholders have agreed on the priorities for the development of the forest sector. The Malawi national forest programme reflects many of the basic principles of such programmes, as defined by the IPF/IFF proposals for action. It is coordinated from within the Department of Forestry and guided by a broad-based National Forest Programme Forum. The process has been instrumental in demonstrating the extent to which forestry contributes to poverty reduction, as seen in Malawi's Poverty Reduction Strategic Paper, and sustainable livelihoods.

28. The Malawi national forest programme has also resulted in a number of changes, including: (a) reform of the national forestry budget process formed to reflect national forest programme priorities; (b) improvement of linkages between natural resources management, environment and poverty reduction; and (c) initiation of co-funding by partners through sector-wide approaches to harness synergies and reduce the administrative complexity of implementation. The national forest programme process is expected to lead to revisions in the Forest Policy of 1996 on such issues as the role of traditional leaders, flexibility in village institutions, approval of community bylaws, and the sharing of benefits in community forestry. The national forest programme process was initiated with the support from the Forestry Department, key non-governmental organizations, and some donor agencies. Today many more donors, non-governmental organizations and the private sector are making it the framework to guide their support to the forest sector, a feature unprecedented in Malawi.

29. The main challenges lie in ensuring that the momentum created during the development phase carries into implementation. There is a need to develop viable approaches to increase the involvement of the private sector and to decentralize authority. The establishment of a participatory monitoring system is also fundamental to ensure that the national forest

programme continuously evolves as a result of lessons learned.

30. The United Republic of Tanzania has, in recent years, embarked on a profound reform of its forest sector. The forest policy of the country was reformed in the mid-1990s through a participatory process to redefine the role of government, local communities and the private sector in sustainable forest management and to identify required institutional and legal changes. This led to a reformulation of the Tanzania Forestry Action Programme (developed in the late 1980s to early 1990s) into the national forest programme that was formally adopted in November 2001. The Tanzania national forest programme, like its counterpart in Malawi, attempts to engage all relevant actors in the dialogue on the forest sector and its future role. All major external supporters of the sector, both multilateral and bilateral, are now committed to channelling their future assistance through the programmes defined in the national forest programme, and the Government is taking a strong stance in coordinating external inputs in accordance with national priorities.

31. Major challenges include carrying through institutional reforms at the central government level, as well as decentralizing and privatizing authority for forest management. This will require major efforts in building the capacity of districts and communities, as well as devising effective policy instruments for private sector participation. Increasing the capacity of the sector for self-financing and moving towards a sector-wide approach, in collaboration with the donor community, also need to be addressed.

Countries with economies in transition

32. In many countries with economies in transition, the focus of the national forest programme process is on revising forest policy, legislation and institutional structures to bring them in line with the shift from a centrally planned to a market economy. Key issues include the restitution of the forest resources, revitalization of private forestry, new roles of the state institutions and other actors, design and implementation of appropriate financial incentives, and dealing with the social aspects of the change.

33. Of the countries that responded to the FAO survey, 11 reported national forest programmes in the implementation stage and 3 in the planning stage. In general, all countries in transition located in Europe are committed to the implementation of the Helsinki resolutions of the Second Ministerial Conference on the Protection of Forests in Europe (1993) and have initiated national forest programmes.

34. The Russian Federation, with the largest forest area in the world, provided the basis for its national forest programme process in 1997, when it adopted a new forest code. Like other countries with economies in transition, major issues include the need to establish and administer new institutional arrangements that would facilitate interaction between the state, which continues to own the forest resources, and the private sector.

35. In Latvia, the national forest programme process aims at: (a) involving civil society, non-governmental organizations and other stakeholders in the planning and management of the forest sector; (b) improving institutional arrangements for forests; (c) developing forest-related legislation in line with a market economy; and (d) carrying out strategic sector planning. Attention is being paid to such elements and principles as: participation, holistic and cross-sectoral approach and capacity-building. An inter-agency steering committee was established to coordinate the process and a task force oversees field activities. Some of the key challenges are: (a) defining effective strategic goals and programmes; (b) finding ways to enhance the competitiveness of the Latvian forest industry in international markets; and (c) enhancing the collaboration of the forest industries with education, research and finance.

36. In Slovakia, the emphasis is on the development of forest policy, strategy and legislation, and harmonizing them with relevant institutional arrangements in the European Union. New instruments were developed with the active participation of key stakeholders and surveys were carried out among forest communities and leaders in the public sector and civil society. The results were widely published and the general public was invited to provide inputs as part of the refinement process. The development of these instruments was intended to provide a basis for preparing the country's national forest programme. Special efforts were made to build capacity through intensive courses in forest planning for professionals engaged in the work. In addition, teaching materials were developed for use in professional degree courses at the university level. Another feature was the

development of a participatory approach to forest planning and programming which the government subsequently extended to the agricultural sector.

Industrialized countries

37. In 1999, the Federal Ministry of Consumer Protection, Food and Agriculture in Germany invited other federal ministries, the *Laender* and non-governmental organizations to participate in the development of a national forest programme. Derived from Intergovernmental Panel on Forests principles and elements, and building on the six-country initiative, entitled "Putting the IPF Proposals for Action into Practice" in support of the Intergovernmental Forum on Forests, the process is being implemented in a participatory and phased manner. The process involved (a) a scientific assessment of the relevance of Intergovernmental Panel on Forests proposals for action for Germany and progress in their implementation; (b) discussions with stakeholders on its findings and to set up procedural guidelines; and (c) further dialogue among stakeholders as a second phase for another two years.

38. The strategy of Germany to implement the IPF/IFF proposals for action builds on the experiences of the Federal State of Baden-Württemberg that served as a pilot in the development of Germany's national forest programme and the ensuing national forest policy dialogue. A similar state-level initiative has now started in Bavaria.

39. The main challenges centre on ensuring that the national forest programme: (a) is cross-sectoral in dimension; (b) is integrated into the national sustainability strategy; (c) is transparent and of high quality; (d) involves the broad participation of stakeholders; (e) is based on consensus and binding on the actors; and (f) is implemented by concrete actions with adequate resources.

40. Finland's national forest programme 2010, approved in 1999, continues the tradition of the country's previous programmes and builds on the New Environmental Programme for Forestry. It covers a wide range of issues, such as forest utilization from an economic, ecological, social and cultural perspective. In addition to domestic demands, the programme is designed to meet the new international forest policy norms. Developed through a process of broad participation by civil society, it is intended to address the concerns of the interest groups involved, as well as the general public. Prior to implementation, an environmental impact assessment was made.

41. The programme will be updated and monitored against changing demands and feedback on implementation. Apart from governmental actions, the programme is dependent on decisions and actions taken by the forest industry and forest owners. An elected and broadly based Forest Council, with several working committees, oversees implementation and follow-up. The Regional Forest Centres have also developed 13 subnational forest programmes in the same participatory manner and are in the process of developing criteria and indicators at this level. A key factor in the implementation and further development of the national forest programme is ongoing discussions on conservation areas.

42. Canada's National Forest Strategy (1998-2003), Sustainable Forests: A Canadian Commitment emerged from a series of cross-country public consultations and a multi-stakeholder review to further define and develop the concept of sustainable forests across Canada. It builds on the successes of the previous five-year strategy and pursues its vision. Nine strategic directions and 121 action items were defined by consensus by stakeholders. The Canadian Council of Forest Ministers, composed of the federal, provincial and territorial ministers responsible for forests, is public trustee of the strategy and ensures that progress is reviewed through independent panels of experts and reported. The National Forest Strategy Coalition, representing a wide array of forest interests across the country, oversees implementation and evaluation of the Strategy and reports to the Council.

C. Regional cooperation

43. Given the broad scope of national forest programmes, it is difficult to separate regional cooperation in the forest sector from support to national forest programmes. In this section several examples of regional cooperation are summarized.

44. FAO coordinates information about national forest programmes in three regions, namely, Africa, Asia and the Pacific and Latin America and the Caribbean. There is a full-time FAO national forest programme adviser located in each regional office to serve as an information broker, organize regional and

subregional networks and compile periodic summaries on the status of national forest programmes.

45. The six FAO regional forestry commissions also serve as a forum for networking and information sharing. The commissions meet every two years, when the heads of national forestry agencies in the region discuss current and emerging issues and topics of common interest, including national forest programmes.

46. In Asia, there are several regional bodies that support countries engaged in national forest programme processes, including the Asian Institute of Technology, the Asia Pacific Association of Forestry Research Institutions, the Asia-Pacific Forestry Commission, the Association of South-East Asian Nations, the Mekong River Basin Development Programme, the Regional Community Forestry Training Centre and Teaknet.

47. In Latin America and the Caribbean, four subregional bodies actively support processes to improve the management of forests, although they do not focus exclusively on national forest programmes. The Amazon Cooperation Treaty covers all 10 countries of the Amazon Basin and actively promotes regional processes in support of forestry and environmental plans with a focus on criteria and indicators. The Caribbean Community (CARICOM) continues to act as a channel for subregional efforts related to the formulation of national forest programmes. The Central American Commission on Environment and Development has a mandate from the Presidents of the seven Central American member countries to facilitate national forest programme formulation in the region, and coordinates the Central American Forestry Strategy. The Southern Cone Common Market (MERCOSUR) is a key player in the development of national forest programmes in the region and has a Centre for Forestry Development, formed by private sector members.

48. In Africa, regional cooperation related to national forest programmes has been on a relatively modest scale. However, some subregional organizations are providing support to their member countries in related policy areas. For example, the African Timber Organization, the Permanent Interstate Committee for Drought Control in the Sahel and the Southern African Development Community have participated in a number of subregional initiatives in the past few years, including seminars organized in collaboration with FAO. In addition, the African Academy of Sciences launched, in 1998, a project to offer training to key actors on the new paradigm in the forest sector of 16 African countries. The project also provides information and policy advice to other African countries to promote follow-up to in-country processes.

49. Three studies on the adaptation of national forest programme principles and guidelines in the different African subregions, covering Central, Eastern and Southern Africa and the Sahelian countries, have been completed in the past few years. Efforts to strengthen capacities through regional technical workshops continue with FAO coordination.

50. In Europe, the Ministerial Conference on the Protection of Forests in Europe has organized several workshops to discuss national forest programmes in the European context. These workshops have confirmed their importance as policy instruments for European countries and have helped to define the concept of national forest programmes for Europe more clearly. A draft paper on national forest programmes has been discussed at several expert-level meetings and will be on the agenda at the fourth Ministerial Conference in 2003. The Ministerial Conference has also facilitated discussion on related issues in Central and Eastern Europe.

D. Actions by members of the Collaborative Partnership on Forests and other international organizations

51. The actions carried out by the member organizations of the Partnership in support of national forest programme processes are described in the framework for the contribution of the Collaborative Partnership on Forests to the work of the United Nations Forum on Forests. Two of the major initiatives are highlighted below.

52. In addition to its support of national forest programmes at the regional level, FAO, in collaboration with different international cooperation agencies, recently developed a National Forest Programme Facility to support developing countries in the implementation of national forest programmes. Its main mode of operation will be capacity-building and information-sharing, including capturing local

knowledge. The Facility is supported by a number of donors and the participating developing countries.

53. The Programme on Forests is another major initiative that facilitates the development and implementation of national forest programmes and has been operating for four years. Previously hosted by the United Nations Development Programme and now by the World Bank, the Programme supports national capacity for the planning and management of forests and generates information on national forest programme processes and related issues, notably livelihoods, governance and financing strategies. Its current activities are focused on Cameroon, Costa Rica, Guyana, Malawi and Viet Nam.

54. FAO continues to provide support to countries which request assistance under the Technical Cooperative Programme. Recently, a number of developing countries and countries with economies in transition have used this support to initiate national forest programmes. The International Tropical Timber Organization provides financial assistance for a wide variety of projects in tropical producer countries, with an emphasis on capacity-building, which also complements national forest programmes. A number of bilateral and multilateral organizations also support national forest programmes in developing countries.

E. Issues and challenges

Developing countries

55. Diverse country conditions and national forest programme processes make it difficult to make general comments on issues, lessons learned and challenges. However, some commonalities can be found, especially at a regional level.

56. In Asia, constraints to the development of national forest programmes include:

(a) Limited awareness in many countries of the IPF/IFF process and its outcomes, which do not facilitate wide implementation of the proposals for action relevant to the national forest programmes;

(b) Reluctance on the part of some countries to embark on national forest programme processes, because of past experiences with lack of support, in particular financial support, from the international community;

(c) Lack of the capacity in many countries in public communication and participatory processes necessary to launch a successful national forest programme;

(d) Lack of relevant data and information on the sector, as well as on financial resources, which hampers the implementation of national forest programme processes.

57. In Latin America the main constraints include:

(a) Lack of the high-level political support needed to reform the forest sector in many countries. Most countries still find it difficult to engage decision makers, for example, in the Ministry of Finance or the Ministry of Agriculture, in effective dialogue on the cross-sectoral aspects of sustainable forest management;

(b) Weak public sector forestry institutions in most countries, which do not have much impact on issues within and outside the forest sector;

(c) Limited effective participation of civil society, especially the poor and the marginalized;

(d) Often outdated and incomplete data and information, which hamper effective planning and monitoring activities;

(e) High dependency by most Latin American countries on official development assistance, which is declining, to finance their national forest programmes.

58. In general, the African countries are facing severe constraints in the development of their national forest programmes. The same institutional, financial and political constraints that have been noted for the Asian and Latin American countries are even more pronounced. The historical dependence on external financing is a fundamental feature of the forest sector in Africa, making the need to streamline mechanisms for cooperation essential. Cross-sectoral impacts, especially those related to poverty and land use, are extremely severe in many African countries and their effective incorporation in national forest programmes has proven difficult.

59. Political instability in several areas in the region makes it almost impossible to implement effective national forest programmes in the affected countries.

Countries with economies in transition

60. The main challenges in countries with economies in transition include: (a) linking external support to internal leadership and initiation; (b) coordinating with other sectors and across sectors; (c) finding the right pace and scope for the transition process in each country; (d) engaging key actors; (e) receiving political support and backing; (f) providing sufficient communication, information flows and transparency; (g) systematically using experiences from other countries; (h) combining local experience and international knowledge; (i) defining clear tasks and functions to all actors; (j) developing criteria for evaluating implementation and instruments; (k) making use of innovative financing solutions and voluntary certification; and (l) building capacity and investment in human resources.

Industrialized countries

61. The European countries have, in general, a long history in formulating and implementing forest policies. The challenge is how to align these with the approach introduced by IPF/IFF. The draft Ministerial Conference on the Protection of Forests in Europe paper on national forest programmes summarizes the principal challenges as follows:

(a) Designing effective mechanisms for public participation;

(b) Employing holistic and cross-sectoral approaches which consider the impact of forestry on other sectors, as well as other sectors on forestry; creating national policies that are consistent with international commitments; raising awareness of forestry goals in other sectors; and building on instruments and mechanisms of cooperation;

(c) Instituting the national forest programmes as long-term iterative processes that build consistency and continuity of forest policies, adapt to changes in the environment and the state of knowledge and are based on systematic monitoring and evaluation.

62. In the draft paper, the Ministerial Conference regards capacity-building as especially important in Central and Eastern European countries and also emphasizes the relevance of the following elements and principles to Europe: (a) consistency with national policies and international commitments; (b) integration with the country's sustainable development strategies; and (c) synergies between international forest related initiatives and conventions.

IV. Conclusions and lessons learned

63. Countries have made considerable efforts to put in place national forest programme processes that are in line with the general definition and broad principles defined by IPF/IFF. The following trends are indicative:

(a) National forest programmes, in general, are long-term iterative and adaptive processes and their monitoring systems are increasingly being linked to the development of national criteria and indicators for sustainable forest management;

(b) Many developing countries are attempting to establish enabling environments for the sustainable development of the forest sector;

(c) Mechanisms have been developed for better cross-sectoral coordination and collaboration;

(d) New policies and instruments are proposed for structural reforms, sectoral self-financing capacity and private investment;

(e) Successful examples of broader participation by more stakeholders in the development of national forest programmes can be found in all country groupings;

(f) Decentralization and devolution of authority are key strategies, as is securing land tenure.

64. In sum, there is a growing trend towards countries implementing IPF/IFF proposals of action, including adopting the principles for national forest programmes and more progressive and participatory policies and planning. However, it is too early to determine the impact of these changes in terms of progress towards sustainable forest management.

65. Significant challenges are still encountered, especially by developing countries, in overcoming key cross-sectoral constraints, particularly those that require high-level political support. Further efforts are needed to improve linkages with broader agendas and instruments for poverty reduction, in order to secure adequate financing for the implementation of national forest programmes. Governance issues must also be addressed if progress is to be made in the decentralization and devolution of authority.

66. Countries can make better use of the national forest programme processes as a vehicle for implementing IPF/IFF proposals of action, not only those related to national forest programmes.

67. The availability of high-quality information and knowledge is key to effective participation and needs to be made available in a transparent manner to the broad range of actors involved in national forest programmes processes. Mechanisms for this are often still lacking.

68. The effective use of knowledge and information requires systematic efforts in capacity-building, especially directed towards those actors whose collaboration is critical to achieving sustainable forest management, including those who, thus far, have been marginalized. Information is needed on international forest-related processes and agreements, such as the Intergovernmental Panel on Forests, the Intergovernmental Forum on Forests, the United Nations Forum on Forests and the post-United Nations Conference on Environment and Development conventions, to facilitate incorporation of the outcomes of such processes and agreements into national policies and processes.

69. The resolution of the financial constraints faced by many developing countries and countries with economies in transition in the development and implementation of their national forest programmes, requires concerted efforts. New innovative multilateral efforts, including the Programme on Forests and the National Forest Programme Facility, are emerging as a mechanism to support the development of national forest programmes in a flexible and country-driven manner. These efforts need to be further developed and systematically monitored by the international community.

70. Member organizations of the Collaborative Partnership on Forests will continue to play a catalytic role in assisting countries to develop and implement effective national forest programmes. The National Forest Programme Facility promises to increase international support and coordination. In targeting support for national forest programmes in several key countries, the Programme on Forests, with support from UNDP, the World Bank and several bilateral donors, will also continue to play an important role. There is potential for more effectively mobilizing resources from other Partnership member organizations in assisting countries in developing and implementing their national forest programmes.

71. The conventional view of national forest programmes is that they are primarily planning exercises for forest activities of the public sector. This perception is rapidly changing as more countries recognize that the private sector is important in forest management and can be a major source of new financing. The need to increase private sector participation is especially pronounced in many developing countries, where the programme is poorly organized and lacks long-term vision. Specific efforts to improve the relationship between the private and public sectors should form part of the national forest programme process.

V. Suggestions for consideration by the United Nations Forum on Forests at its second session

72. The Forum might wish to consider the following elements as the basis for its decisions on facilitating the implementation of national forest programmes:

(a) Re-emphasize the importance of the cross-sectoral nature of an effective national forest programme, stressing interaction between the forest sector and other sectors in addressing such issues as poverty alleviation, sustainable livelihoods and economic development;

(b) Recognize the need to improve understanding of key thematic and process issues related to national forest programmes, such as governance, decentralization, sustainable livelihoods, poverty and financing, and the need to disseminate this information at the national and international levels;

(c) Urge countries to strengthen the involvement of civil society in national forest programmes, in order to address more effectively issues such as governance, empowerment and local capacity-building;

(d) Call upon donor agencies to channel their support for capacity-building through national forest programmes in developing countries and countries with economies in transition;

(e) Call upon countries to support the National Forest Programme Facility and the Programme on

Forests in their efforts to promote national forest programmes;

(f) Call upon countries to strengthen regional cooperation in information-sharing, capacity-building and other efforts to develop, implement, monitor and evaluate national forest programmes;

(g) Encourage countries to report on the development and implementation of their national forest programmes in their reports to the United Nations Forum on Forests;

(h) Invite FAO to carry out a comprehensive survey on the status of the implementation of national forest programmes and present its results at the fourth session of the United Nations Forum on Forests.